



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

THE CULTURAL AND SOMATIC CORRELATIONS OF UTO-AZTECAN

By P. E. GODDARD

MODERN anthropology has one practically undisputed dogma. Culture being independent of biological inheritance is a thing separate from race or a particular biological strain. Culture, of course, includes language. In the middle of the nineteenth century the linguistic students in Europe used to speak of an Aryan race as well as Aryan languages. Toward the end of that century nothing could be more heretical than to speak with so little discrimination. This lesson of the separateness of language and race was exceedingly important in Europe and equally so in America.

Dr. Wissler¹ has recently reopened the subject by pointing out that actual conditions in North America do show a correlation between physical types, language, and other elements of culture. The Eskimo have skulls sufficiently peculiar to be easily distinguished, a culture of their own, and a language shared in only by the Aliut. There are also the Caribou-hunting, Athapascan-speaking peoples of the Mackenzie drainage.

On *a priori* grounds there ought to be some correlation between physical type, language, and culture. It is true that the body itself is derived by a peculiar biological mechanism, and that this has little or no influence on language or the variety or type of culture. Language and culture however are normally derived largely from the parents and grandparents, the same individuals from whom physical peculiarities are inherited.

If we imagine a valley of ample extent, the walls of which constitute definite barriers, occupied by a single family, a hundred generations should produce a definite biological strain of consider-

¹ *The American Indian*, chap. XIX, pp. 327-341.

able uniformity, a common language, and a common general culture.

It is perhaps permissible to consider this the normal, expected condition. When such correlations do not exist interfering conditions are to be sought. An African race speaking English in North America is certainly unusual enough to require an explanation.

If a Siouan language is found near the south Atlantic coast of North America, one quite naturally speaks of a movement of peoples from the Plains region which carried the language southeastward. It is fairly proper to attempt a reconstruction of the distribution of the population in America on the basis of a correlation of language and physical type bearing in mind however that this correlation does not depend upon a casual relation. One of the main difficulties in such attempts at reconstruction has been the intangibility of the characterizations of the physical strains. Even when to an experienced eye the biological differences in tribes can be recognized, it has been difficult to reduce these observations to a statement or formula. The Eskimo are an exception. Prevailing longheadedness also is sufficiently uncommon to differentiate an occasional group.

Particularly interesting has been the differentiation in southern Utah of two types of culture. One of these is known as Cliff-dweller and the other Basket-maker. The former built many-roomed stone houses, and made several varieties of pottery. The latter did not build permanent houses, and made little pottery. That the basket-making peoples did not acquire the house-building, pottery-making habits, was demonstrated when it was observed that basket burials were always associated with the remains of people with unusually long heads which were in no instance deformed. The stone house-building people practised the flattening of the back of the head. Even if the heads had not been shortened artificially they are prevailingly less long than those of the basket-making people.

Now these basket-making people had certain elements of culture which connect them with the far south. They are in fact the

northern representation of a broad general culture which formerly extended southward to Chili. The important common elements may be named as the raising of maize, grinding it on a metate, the raising of cotton and weaving it and other vegetable fibers on a simple frame loom, the wearing of sandals, and the use of the spear thrower. The culture of maize originated far south of Utah. It is probable agriculture as well as the other arts mentioned above reached Utah by transmission from one people to another.

We have recently learned that the building of many-roomed houses of stone and adobe, and the manufacture of corrugated and paint-decorated pottery are arts which arose in the Southwest itself. While we have no conclusive evidence, it seems probable that the more highly developed forms of present day Pueblo religion, the dramas and processions, were also developed in the Southwest. Some of the simple foundation elements of the religion however extend beyond the Pueblo region. Of these may be mentioned feathered offerings, color symbolism, the use of cornmeal for sprinkling, etc.

Powell, actuated by a commendable scientific caution, separated the languages of the southern plateaus, the Shoshonean, from the Piman of southern Arizona and northern Mexico, and from the Nahuatl of the valley of Mexico. Kroeber¹ in 1907 reunited these groups under the name of Uto-Aztecan. We have then a large linguistic group stretching from southern Mexico nearly to the Canadian boundary.

While these Uto-Aztecan-speaking peoples cannot be said to have occupied a valley similar to the hypothetical one mentioned at the beginning of this article, they did occupy a series of such valleys, extending from north to south. The Rocky mountains and the high Sierra of Mexico formed a barrier on the east. The Sierra Nevada and the Mohave desert were a partial barrier on the west. Unlike our hypothetical valley, the Uto-Aztecan range was so great that instead of linguistic uniformity we find three great linguistic subdivisions. The Shoshonean proper may be imagined

¹ "Shoshonean Dialects of California," *University of California Publications in Archaeology and Ethnology*, vol. iv, pp. 66-156. Berkeley, 1907.

as having been originally north of the Colorado river.¹ From the Gila southward, west of the Sierra Madre are the Piman peoples; south and east of these mountains are the Nahuatl of Mexico valley. These linguistic groups were evidently in existence in the sixteenth century, and the changes in the languages since they were first known have been slight. For the development of such linguistic groups milleniums should be allowed.

As oil follows up a wick, so the culture of the south may be imagined to have passed northward among this people of a common speech. It went north along this particular line as far as cotton and maize can be grown. Had the culture followed the Pacific coast it might have reached Oregon at least.

We seem then to have a fairly definite correlation between language and a culture which has no necessary relation to language. Have we a further correlation with a definite physical type? The longheadedness of the Basket-makers, the Pima, and Papago, and certain Mexican tribes has indicated such a special type. The paper by Mr. Sullivan on the "Fossa Pharyngea" establishes a definite physical group having a common line of inheritance. The very insignificance of this fossa precludes any argument for its occurrence as a result of environment. The backbone of south-western physical, linguistic, and cultural early distribution seems to have been established. It remains to trace similar relations and connections for the groups east and west of this Uto-Aztecan speaking, maize and cotton raising, longheaded people who in uncommon numbers, have a fossa pharyngea. With a physical type definitely correlated with Shoshonean speech it ought to be possible to determine whether any considerable number of such a physical strain were incorporated in the Shoshonean-speaking Hopi villages. If a definite physical type can be established for the stone house building peoples of the San Juan drainage it should be possible to trace the movement of the people themselves as well as their culture. This is especially promising since types of pottery of definite geographical and temporal sequence have been established.

AMERICAN MUSEUM OF NATURAL HISTORY,
NEW YORK CITY

¹ The Comanche in Texas and the Paiute in southern California have been assumed to have left the plateaus in fairly recent times.